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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,927	01/09/2006	Yeow Teng Toh	DE 030243	3781

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EXAMINER	
AKBAR, MUHAMMAD A	
ART UNIT	PAPER NUMBER
2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/563,927	TOH ET AL.	
	Examiner	Art Unit	
	Muhammad Akbar	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 January 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. EP03102109.0.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/09/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim(s) 1-3, 9 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shore (U.S. Patent No. 5,742,902) and in view of Lin (U.S. Patent No. 5,983,084).

Re claim(s) 1 and 14, Shore discloses door operator circuit apparatus (see fig.1 and abstract) [i.e. which has a remote control system] comprising: a receiver antenna (20 of fig.1) coupled to the receiver amplifying circuit (24 of fig.1 and 2) and to a first inductor (L40 of fig.7); a receiver super-regenerative circuit (26 of fig.1) with quench oscillator i.e. oscillating-filtering circuit (26,28,30 of fig.1, 5) coupled to the receiver amplifying circuit (24) and comprising a second inductor (L22 of fig.5); and a receiver amplifying-shaping circuit (32 of fig.1,8) which shapes the level shifted signal to provide the data signal as output and coupled to the receiver oscillating-filtering circuit via a receiver filtering circuit (30 of fig.1) with a inductor (L40) having a variable values for aligning the receiver (see fig.1-8,col.8 lines 20-25) [since first L40 inductor has a variable value 68nH to 86nH (col.6 lines45-48) that can be tuned for adjusting (aligning) the receiver].

But failed to disclose a transmitter comprising: transmitter oscillating amplifying circuit further comprises surface-acoustic-wave-resonator; and transmitter antenna coupled to the transmitter oscillating amplifying circuit. However, Lin discloses a remote keyless entry system (remote control system) comprising a transmitter (T of fig.1-2 and A, B of fig.3); and transmitter (T) comprises – LC oscillator such as Colpitts oscillator CO includes an inductor (L1) which is serving as an antenna for transmitting the radio frequency signal and amplifier (10 of fig.2) interposed between antenna and Colpitts

oscillator CO for amplifying the signal [i.e. a transmitter oscillating-amplifying circuit] (see fig.1-2, col.2 lines 65-67,col.3 lines1-3,col.4 lines 33-45); and transmitter oscillating amplifying circuits comprising a surface-acoustic-wave-resonator (see fig. 1 "SAWR").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the remote control system comprises a receiver oscillating amplifying circuits, oscillating filter circuits and shaping circuits with inductor which is coupled to the receiver (as taught by Shore) by incorporating a transmitter section having a transmitter antenna, oscillating amplifying circuit and surface acoustic wave resonant (as taught by Lin) to improve remote control system by reduction of spurious signal providing of SAW resonator in the transmitter circuits and cost effective as well in the remote control system.

Re claim 2, as discussed above with respect to claim 1, Shore further discloses the receiver super-regenerative circuit with filter (i.e. oscillating-filtering circuit) (26,30 of fig.1) comprises a first transistor (Q20 of fig.5) of which first transistor a first main electrode (emitter) is coupled to the receiver filtering circuit (30 of fig.1) and to a first capacitor (C22 of fig.5) and to a side of a second capacitor (C24 of fig.5) and of which first transistor (Q20) a second main electrode (collector) is coupled to the receiver amplifying circuit (24 of fig.1) and to an other side of the second capacitor (C24) and to the second inductor (L22 of fig.5).

Re claim 3, as discussed above with respect to claim 2, Shore furthermore discloses the first inductor (L40 of fig. 7) is coupled to a third capacitor (C42 of fig.7) in parallel (see fig.7) and the second inductor (L22 of fig.5) is coupled to a fourth capacitor (C20 of fig.5) in parallel (see fig. 5).

Re claim 9, as discussed above with respect to claim 1, Shore discloses that a remote control system is ceramic-resonatorless (see fig.1-8)[i.e. remote control system uses surface-acoustic-wave-resonator as teaches by Lin] and the receiver (12 of fig.1) being surface-acoustic-wave-resonatorless (see fig.1-8) [wherein receiver circuits does not use surface-acoustic-wave-resonator as disclose by Shore].

Re claim 12, It is essentially a part (transmitter part) of the claim 1,wherein Lin teaches all the limitations as recited in clam 1 and is rejected given the same reasoning as above.

Re claim 13, It is essentially a part (receiver part) of the claim 1,wherein Shore and Lin teaches all the limitations as recited in clam 1 and is rejected given the same reasoning as above.

5. Claim(s) 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shore as modified by Lin as applied to claim 1-3 above and further in view of Hunter (U.S. Patent No. 2,824,170).

Re claim 4, Shore discloses all the limitations in combination with Lin with respect to claim 1-3 except receiver ripple rejecting circuit comprising a second transistor of which second transistor a first main electrode is coupled to the second inductor via a fifth capacitor and of which second transistor a second main electrode is coupled to a second reference terminal and of which second transistor a control electrode is coupled to a sixth capacitor and to the second reference terminal via a second resistor .However, Hunter teaches television signal processing circuits wherein ripple eliminating circuits comprises NPN transistor (58 of fig.2) of which first main electrode(emitter) coupled to the capacitor i.e. fifth capacitor(48 of fig.2) and second main electrode (collector) is coupled to the reference terminal (57 of fig.2) and control electrode(base) is coupled to the capacitor i.e. sixth capacitor (36 of fig.2) and to the reference terminal i.e. second reference terminal (34 of fig.2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made remote control system comprises receiver circuits and incorporating transmitter circuits taught by Lin to the system and further modified receiver circuits by including ripple eliminating circuits as taught by Hunter to reduce undesired ripple components as a signal between base and emitter, thus ripple balancing is achieved in the remote control system.

Re claim 5, as discussed above with respect to claim 4, Shore furthermore discloses the receiver amplifying circuit (24 of fig.1) comprises a third (Q1 of fig.2) and a fourth (Q2 of fig.2) transistor with a first main electrode(emitter) of the third transistor

(Q1) being coupled to the first reference terminal via a parallel circuit of a third resistor (R4 of fig.2) and a seventh capacitor (C5 of fig.2) with a second main electrode (collector) of the third transistor (Q1) being coupled to a first main electrode(emitter) of the fourth transistor (Q2) with a second main electrode (collector) of the fourth transistor (Q2) being coupled to the first main electrode of the second transistor [which is taught by Hunter as described in the claim rejection's 4] via a fourth resistor (R9 of fig.2) and to the second main electrode of the first transistor (L22 of fig.5), and with a control electrode of the third transistor (Q2) being coupled to the receiver antenna (20 of fig.1) and to the first inductor (L40 of fig.7).

Re claim 6, as discussed above with respect to claim 5, Shore furthermore discloses the receiver filtering circuit (26 and 30 of fig.1) comprises a third inductor (L20 of fig.5) coupled to the first main electrode of the first transistor (Q20 of fig.5) and further coupled to a parallel circuit of fifth resistor (R50 of fig.8) and an eighth capacitor (C50 of fig.8) and to a nineth capacitor (C52 of fig.8) via a sixth resistor (R60 of fig.8) which parallel circuit and which nineth capacitor (C52) are further coupled to the first reference terminal (see fig.5 ,7and 8)

6. Claim(s) 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over shore as modified by Lin as applied to claim 1 above and further in view of Melbourne (U.S. Patent No. 6,774,787 B1).

Re claim 10 and 11, Shore discloses all the limitations in combination with Lin with respect to claim 1 and shore further discloses receiver is coupled to the antenna (20 of fig.1) and decode (34 of fig.1) received amplitude signal modulated (wherein CW signal that is on –and –off modulated to superimpose to a data signal to produce RF command signal i.e. to perform amplitude shift keying demodulation); and Lin further teaches colpitts oscillator that has an inductor (L1 of fig.2) serving an antenna for transmitting the radio frequency signal and the carrier wave(CW) provided by the oscillator is modulated by the digital code provided by the controller to provide a chain binary 1 and 0 pulses (on and off i.e. amplitude shifting keys modulation).

But failed to disclose explicitly transmitter antenna is a printed antenna and uses for short range purposes. However, Melbourne teaches electronics locator system i.e. TV remote control system (same field of endeavor) comprises transmitter(90 of fig.4) coupled to the printed antenna (94 of fig.4) and receiver is coupled to the printed antenna (96 of fig.4); and printed antenna can be used for short range purposes (see fig. 1,4,col.1 lines13-16,col.3 lines50-53,col.7 lines 5-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made remote control system comprises receiver circuits and incorporating transmitter circuits taught by Lin to the system and further modified transmitter and receiver antenna by including printed antenna for transmitting/receiving short range radio frequency signal as taught by Melbourne to provide better performance of the antenna system to provide loop design printed antenna.

Allowable Subject Matter

7. Claim(s) 7-8 are objected to as being dependent upon a rejected base claim, but would be allowable if re-written in a independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for the indication of allowable subject matter:

Re claim 7, the prior art does not teach or fairly suggest in combination with the other claimed limitations including:

"receiver amplifying-shaping circuit (27) comprises a fifth (114), sixth (117), seventh (118) and eighth (123) transistor, with a control electrode of the fifth transistor (114) being coupled to the nineth capacitor (105) and with a second main electrode of the fifth transistor (114) being coupled to the second reference terminal (91) via a seventh resistor (113) and to a control electrode of the sixth transistor (117) via an eighth resistor (115) and to a control electrode of the seventh transistor (118) via a nineth resistor (120), and with a second main electrode of the seventh transistor (118) being coupled to a control electrode of the eighth transistor (123) and to the first reference terminal via a tenth resistor (119), and with a second main electrode of the eighth transistor (123) constituting a data output (124) of the receiver (2) and being coupled to the second reference terminal (91) via an eleventh resistor (122)"

Re claim 8, the prior art does not teach or fairly suggest in combination with the other claimed limitations including:

"wherein the transmitter oscillating-amplifying circuit (12) comprises a nineth transistor (46) of which nineth transistor (46) a control electrode is coupled to the surface-acoustic-wave-resonator (42) via a tenth capacitor (41) and to a transmitter input circuit (11) comprising a fourth inductor (32) and of which ninth transistor (46) a first main electrode is coupled to the first reference terminal via a serial circuit of a twelfth resistor (47) and a fifth inductor (48) and of which ninth transistor (46) a second main electrode is coupled to the transmitter antenna (13)"

Though the closest prior art is Shore (U.S. Patent No. 5,742,902) and Lin (U.S. Patent No. 5,983,084). Shore discloses a receiver amplifying circuit (32 of fig.1) that has only one transistor (Q70 of fig.8) instead of four transistor and Lin teaches transmitter circuits but failed to discloses " ninth transistor has a first main electrode coupled to the first reference terminal via a serial circuit of a twelfth resistor and a fifth inductor ".

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (7.96)

The following patent are cited to further show the state of the art with respect to clips and bookmarks in general:

U.S. Patent No. 4,794,622 to Isaacman et al teaches low power transmitter frequency stabilization wherein uses surface acoustic wave resonator.

U.S. Patent No. 6,342,844 to Rozin teaches two way radio based electronic toll collection method and system for highway wherein uses printed antenna.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Muhammad Akbar whose telephone number is (571)-270-1218. The examiner can normally be reached on Monday- Thursday (7:30 A.M.-5:00P.M).If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MA

3-13-07
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